ADMINISTRATION REPORT OF CIVIL WORKS

OF THE

PUBLIC WORKS DEPARTMENT,

(GENERAL BRANCH,)

BOMBAY PRESIDENCY,

FOR THE YEAR

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FOR THE YEAR 1887-88.

GENERAL REMARKS.

1. The total expenditure of the year on Civil Works, Imperial and Provincial, Local Funds, Incorporated and Excluded, and Contributions, was Rs. 53,90,903 as per margin. In round figures the expenditure on New Works was 24¾ lákhs; on Repairs 18 lákhs; on Establishment 10¾ lákhs; and on Tools and Plant ½ a lakh.

In India.

	Rs.
Imperial	2,84,504
Provincial	40,33,991
Contributions	1,00,866
Local Funds Incorporated...	8,51,124
Do. Excluded ...	1,20,418
Total Rs. ...	53,90,903

II.—CIVIL WORKS.

I.—CIVIL BUILDINGS.

I.—IMPERIAL SERVICES.

2. The expenditure under this head was Rs. 2,84,504, of which Rs. 1,59,510 was for Original Works; Rs. 64,082 for Repairs; Rs. 57,984 for Establishment; and Rs. 2,928 for Tools and Plant. The works carried out were as follows:—

1.—FOREST.

3. No new buildings were undertaken for the Forest Department, but the bungalows for the Divisional Forest Officers at Bijápur and Sirsi, described in the last report, were completed during the year, at a cost of Rs. 11,777, and Rs. 10,219 respectively.

2.—CUSTOMS.

4. The only work done under this head during the year, was certain additions and alterations to the Custom-house in the Fort at Bombay, to improve the office accommodation, the cost of which was Rs. 3,380.

3.—SALT.

5. The following buildings for the Salt Department were completed or in progress. In the Southern Division, the quarters for the Jaskar Darogha and his establishment, at Dungri, in the Uran Range, in the Kolába Collectorate, commenced in 1886-87, were completed at an outlay of Rs. 9,945; and a block of buildings containing accommodation for an office, and quarters for Kárkúns and peons for the Chirner Náka, also in the Uran Range, was commenced and completed during the year, the cost being Rs. 4,794, against the estimate of Rs. 4,847.

6. In the Northern Division, the Khárághoda Tank was provided with an experimental length of puddle walling, at a cost of Rs. 1,617, and a sum of Rs. 2,152 was expended in sinking temporary wells in the bed of the tank, to improve the water-supply. The pillars that carry the high level railway into the salt shed at Khárághoda, which were in a damaged condition, owing to the action of the salt on the lime mortar, were entirely rebuilt, at a cost of Rs. 5,073. The road from the Dungri Railway Station to the Dhárásna salt pans, on which certain small additions were necessary, was entirely completed during the year, as also the Inspector's quarters and Sir Kárkún's kacheri at Dhárásna. The cost of these works has been Rs. 4,657, and Rs. 7,835 respectively. A Salt Customs Chauki at Tusava in the Sálsette Táluka, and a Sir Kárkún's Kacheri at Omele in the Bassein Táluka, were in progress, the expenditure incurred to end of the year being Rs. 2,279, and Rs. 15,606 respectively.

7. In Sind, the buildings for the Salt Establishment at Saran, commenced in 1886-87, were completed, at a total cost of Rs. 5,271.

5.—MINT.

8. The only work done under this head was the completion of the new chimney for the Bombay Mint, described in the last report, at a cost of Rs. 6,450, against the estimate of Rs. 6,958.

6.—POST OFFICES.

9. A joint latrine for the Post and Telegraph Department at Bombay, was in progress, and Rs. 5,000 were expended during the year. The new Post Office at Tando Alahyar was completed, at a cost of Rs. 1,106.

7.—TELEGRAPHS.

10. The Branch Telegraph Office at Mándvi, Bombay, was commenced during the year. The building is being constructed on a piece of ground adjoining the Carnac Bandar siding road, purchased from the Port Trust for Rs. 5,070, and will, when completed, consist of a ground-floor and two upper stories. On the ground floor will be located the signal room, 31′ × 12′, the battery rooms, and rooms for the servants, &c., and quarters for the Signallers and Telegraph Master will be provided on the upper floors. The expenditure during the year was Rs. 5,000.

11. The extension of the Central Telegraph Office at Bombay, described in the last report, has been nearly completed, the total expenditure being Rs. 1,41,055, against the estimate of Rs. 1,61,833.

II.—PROVINCIAL SERVICES.

12. The expenditure from Provincial and Local Funds, and Contributions under this head (including the outlay on Forest and Customs buildings) was Rs. 20,34,743 of which Rs. 12,31,621 was for Original Works; Rs. 3,65,937 for Repairs; Rs. 4,23,964 for Establishment; and Rs. 13,221 for Tools and Plant. The principal works carried out during the year were as follows:—

12.—ADMINISTRATION.

13. Under this head, Mámlatdárs' kacheris, on the standard plan, were in progress, or completed, at Kalghatgi in the Dhárwár, Bágalkot in the Bijápur, Vita in the Sátára, Chikodi in the Belgaum, Sángola in the Sholápur, Niphád in the Násik, Shrígonda, Karjat, Ráhuri, Akola and Sangamner in the Ahmednagar, Sakri, Jámner and Sháháda in the Khándesh, Anklesvar in the Broach, Kapadvanj in the Kaira, and Dhandhuka in the Ahmedabad Collectorates. The quarters for the Mámlatdár's establishment at Mángaon in the Kolába Collectorate, were also completed; and a pendall at Vadgaon in the Poona Collectorate, was converted into a Mámlatdár's kacheri, and an office for the Chief Constable and Sub-Registrar.

14. Record accommodation has been provided for the Mámlatdár's kacheri at Jalalpore in the Surat Collectorate; and a record-room for the kacheri at Olpád, in the same Collectorate, was in progress.

15. The building for the State and Alienation records at Poona, alluded to in the report for 1885-86, work on which was suspended, was in progress during the year. The foundations, plinth, and superstructure of the ground-floor have been completed; the outlay to end of the year having been Rs. 28,434, against the estimate of Rs. 1,34,634.

16. A Mahálkari's kacheri has been constructed at Uran in the Kolába Collectorate, and similar kacheris are in progress at Navápur in the Khándesh, and Hálol in the Kaira Collectorates.

17. Additional offices for the Assistant, and District Deputy Collector, the Honorary Magistrate, and Forest Settlement Officer, Thána, were under construction; the estimate for the work is Rs. 15,653, against which Rs. 5,986 were expended during the year.

18. New public offices to accommodate the Revenue, Judicial and Accounts Departments, were also in progress at Broach. The buildings are estimated to cost Rs. 53,539, and Rs. 12,761 have been expended during the year, on the foundations, and the collection of materials.

19. In Sind, the new Mukhtyárkarates at Dokri in the Shikárpur, and Bágo Tándo in the Hyderabad Collectorates, were completed; and the Fort at Kotri was converted into a Mukhtyárkarate, with Jail accommodation, and quarters for Armed Police.

20. A new district bungalow, to replace the old one which was sold to the Rája of Dharampor, was in progress at Bulsár; the foundations have been completed, and Rs. 3,550 expended during the year.

21. At Bijápur, in connection with the scheme for the adaptation of certain ancient buildings for the head-quarter station, the principal works in hand during the year, were the Civil Hospital and the Town Police Chaukis. The former has, with the exception of a few small items, been completed at a cost of Rs. 35,986, against the estimate of Rs. 38,830; and the latter, nine in number, were also completed at a cost of Rs. 4,690. Many unfinished items of work on the several buildings comprised in the scheme, were completed in the year. The total estimated cost of the scheme is Rs. 3,65,715, and the total outlay to end of the year was Rs. 3,55,698.

22. The only work executed in connection with Government houses, was certain alterations to the Coach-house and Harness-rooms, and the change in the direction of a road, at Government House, Malabár Point, Bombay, due to the location of a new battery at the point.

23. A bungalow for the Political Agent, Mahi Kántha, at Sádra, was commenced and Rs. 9,909 expended in the year. The building is estimated to cost Rs. 20,462, and when completed will consist of a ground and upper floor, with drawing, dining and office rooms below, and two bed-rooms and subsidiary rooms above. A guard-room for the Residency at Aden, was completed during the year, at a cost of Rs. 2,649.

24. The distilleries at Bijápur in the Bijápur Collectorate, and Mudihal in the Dhárwár Collectorate, alluded to in the last report, were completed at a cost of Rs. 23,239 and Rs. 49,359, respectively; and certain additions and alterations to the Ahmedabad distillery, to increase the accommodation, were in progress. The following works were also carried out during the year, in connection with the distillery at Kotri, *viz.*, enclosure wall, at a cost of Rs. 5,252, temporary quarters for the Inspector and pendalls for guards, and permanent quarters with out-houses, for the Distillery Inspector, at a cost of Rs. 6,335.

25. The additions to the quarters of the Superintendent of the Government Observatory, at Colába, were completed in the year, at a cost of Rs. 6,054; and the drainage of the New Secretariat at Bombay was in progress, the expenditure of the year being Rs. 3,541, against the estimate of Rs. 5,242.

26. The new residence for the Ráni of Akalkot, a State work, was completed during the year, at a cost of Rs. 15,560, from funds provided by the State.

14.—LAW AND JUSTICE.

27. During the year new Subordinate Judge's Court-houses, on the standard plan, were in progress or completed, at Rájápur in the Ratnágiri Collectorate, Bágalkot in the Bijápur Collectorate, Khed in the Poona Collectorate, Shirpur in the Khándesh Collectorate, and Nadiád and Umreth in the Kaira Collectorate. A record-room was provided for the Judge's Court at Poona; and certain additions and alterations to the Cantonment Magistrate's office at the same station, were in progress, the cost of the work being met from cantonment funds.

28. A new Court-house for the District Judge at Kárwár was in progress. The building is estimated to cost Rs. 30,914, and will, when completed, consist of a Court-room and chambers for the Judge, a library and vakils' room, and the necessary accommodation for the office establishment. The out-houses comprise a Civil Jail, with 3 rooms, each 15′ × 12′, and store-rooms, and peons' quarters.

29. At Bombay, the new building for the Police Magistrates' Courts, on the Cruikshank Road, Esplanade, fully described in the report for 1884-85, is nearly completed, and will be ready for occupation by January 1889. The total expenditure has been Rs. 2,41,712 against the estimate of Rs. 3,87,361.

15.—ECCLESIASTICAL.

30. The only work under this head, is the Roman Catholic Chapel at Baroda, commenced in 1884-85, and which was completed during the year, at a cost of Rs. 15,183.

16.—JAILS.

31. The works in progress during the year were the jail at Sátára, and the Juvenile Reformatory at Poona, both described in the report for 1884-85. The former was completed at a total cost of Rs. 60,919, and considerable progress made with the latter, which will be ready for occupation in July 1888.

17.—POLICE.

32. Police lines were completed during the year at Bágalkot, Annigad, Mangoli, Sirúr, Ralli and Hittauli in the Bijápur Collectorate, Panvel in the Kolába Collectorate, Rájápur in the Ratnágiri Collectorate, Násik in the Násik Collectorate, Pathardi in the Ahmednagar Collectorate, and Dokri in the Shikárpur Collectorate; and Police Lines were in progress, at Chiplún, Rájápur (near the Mámlatdár's kacheri), and Guhágar in the Ratnágiri Collectorate, Supa and Haliyál in the Kánara Collectorate, Manmád in the Násik Collectorate, Ráhuri and Akola in the Ahmednagar Collectorate, Mukti and Taloda in the Khándesh Collectorate, and Mahuda, Pandu, Hálol and Dákor in the Kaira Collectorate. Improvements to the old block of lines at Kaira, and quarters and stabling for Savárs at Thásra, in the same Collectorate, were also completed, and additional accommodation was provided for the Mounted Police Lines at Godhra. In Sind, new pendalls for the Armed Police Lines at Hyderabad, were in progress and Rs. 7,000 expended during the year.

18.—EDUCATIONAL.

33. At Bombay, the provincial works carried out during the year, were additions to the Veterinary College and Hospital at Parel, consisting of a porch and a museum, the estimated cost of which is Rs. 5,180, a practical examination and operating shed, a chemical laboratory, and a branch road in the compound of the hospital, the total estimated cost of which is Rs. 5,566.

34. A new and complete system of drainage has been provided for the old Elphinstone College, which has been handed over to the Victoria Jubilee Technical Institution, at a cost of Rs. 8,444.

35. Of private buildings, the Wilson College, fully described in the report for 1885-86, was in progress. The masonry of the ground floor was completed during the year, and the work of the first floor commenced; the total outlay having been Rs. 40,112.

36. The work on the east wing of the Cathedral High School, which was suspended for want of funds, was resumed during the year, and Rs. 10,258 expended.

37. A tank in the compound of the David Sassoon Industrial Reformatory was filled in, and the ground reclaimed will be utilized for extension of the premises; the funds for the work which was estimated to cost Rs. 7,197, were found by the institution.

38. At Poona, an Observatory for the College of Science was commenced. It will consist of one central circular room, 18′ 9″ in diameter, with two wings 18′ × 18′, with an ornamental porch over the entrance. The building is estimated to cost Rs. 6,479, and Rs 1,022 were expended during the year. A lecture-room for the Veterinary Hospital, in connection with the same college, was also in progress, and Rs. 3,115 expended during the year.

39. A building 72′ × 35′, affording accommodation for a sick ward, hospital assistant's quarters, dispensary, and store-room, in the Deccan College at Poona, was completed during the year, at a cost of Rs. 5,700.

40. A project for a residence and schools for the Sisters of St. Mary's Home at Poona, was in progress. The buildings are being erected on a piece of land purchased by the Sisters, in the vicinity of the Church of the Holy Name near Panch Hauds, in Vithal Peith, at Poona, and consist of a residence for 12 Sisters, including an oratory, sacristy and out-buildings, an anglo-vernacular, and a vernacular school, the total estimated cost of which amounts to Rs. 71,722. The residence has not been commenced, but the vernacular and anglo-vernacular schools were in progress during the year; the former provides accommodation for a school and class room, infirmary, Matron's and Sisters' rooms, and a linen room; the latter consists of a ground and upper floor, and affords accommodation, on the ground floor for an infant school, a class room, a school room and play ground, and on the upper floor for a nursery, dormitories, infirmary, Matron's and Sisters' rooms and bath rooms. The funds for these buildings, with the exception of a small contribution from Government for the vernacular school, have been provided by the Sisters of St. Mary's Home.

41. A small detached bungalow for the accommodation of the Sisters in charge of St. Mary's school at Poona, was nearly completed during the year, the expenditure having been Rs. 4,201, against the estimate of Rs. 4,326, of which Rs. 2,547 have been provided by contribution.

42. At Ahmedabad, the work of providing additional accommodation in the Premchund Raichund Training College, was in progress. The additions, consisting of a practising room, school room, library and lecture-hall, will be made in continuation of the present dining hall; a cook-room, servants' and peons' quarters, and store-rooms will also be provided.

43. A municipal school at Bijápur, to be called the Victoria Jubilee School, was in progress, and Rs. 4,417 of the estimate of Rs. 6,830 expended during the year. A school-house for girls at Dholka, towards which Rs. 1,850 were contributed by Shett Girdurlal Bhowanidass, was completed, and handed over to the Municipality.

44. Local Fund school-houses were completed, or in progress, at Sukine and Pimpalgaon Baswant in the Násik Collectorate, Mirajgaon in the Ahmednagar Collectorate, Yával in the Khándesh Collectorate, Agáshi and Tárápur in the Thána Collectorate, Godhaur in the Ahmedabad Collectorate, and Shahdádpur in the Upper Sind Frontier District.

45. The school building at Akalkot, chargeable to the funds of the State, and estimated to cost Rs. 23,513, commenced last year, was nearly completed, and Rs. 22,487 expended to end of the year.

19.—MEDICAL.

46. Under this head, works were carried out at the following hospitals : four of the wards at the Jamsetji Jijibhoy Hospital at Bombay, were paved with Minton Tiles, at a total cost of Rs. 4,683.

47. The quarters for female medical students and nurses, with out-houses, in the compound of the Cama Hospital, towards which Rs. 15,000 were contributed by Mr. Pestonji Hormasji Cama, and Rs. 10,000 by the National Association, for supplying Female Medical Aid and Instruction to Women of India, were completed during the year at a cost of Rs. 23,456. The main building is double-storied, and has two large rooms in each floor. One of these is used as a lecture-room and the other is divided off by partitions, to provide accommodation for the students and nurses.

48. Additions to the subsidiary buildings of the Lunatic Asylum at Ratnágiri, were commenced and nearly completed, and the reconstruction of the compound wall finished, at a total cost of Rs. 11,171.

49. The old traveller's bungalow at Vengurla was converted into a dispensary, at a cost of Rs. 5,483 ; and Local Fund dispensaries were completed during the year at Trimbak in the Násik Collectorate, Bassein and Murbád in the Thána Collectorate, and Dokri in the Shikárpur Collectorate.

50. The Ripon Hospital at Ahmednagar, fully described in the last report, was completed during the year, at a total cost of Rs. 38,545, against the estimate of Rs. 37,961.

51. Quarters for 3 trained nurses in the Sassoon Hospital at Poona, were commenced and completed during the year ; and the following alterations were also carried out in connection with the same hospital : viz. removal and reconstruction of the dead-house, isolation ward, small-pox shed, and delirium tremens ward ; re-erection of the boundary fence, and construction of a road to the Nursing Sisters' quarters. The estimated cost of the quarters for the Nurses, including the cost of the alterations to the hospital, amounts to Rs. 28,699, against which Rs. 26,062 were expended during the year.

20—MISCELLANEOUS.

52. The new building intended for the Central Press, but which has now been reserved for the Elphinstone College and General Record-room, and will in future be known as the new Elphinstone College and General Record-room, has been almost completed, and is now occupied by the College ; the old Elphinstone College premises having been handed over to the Victoria Jubilee Technical Institution. The total outlay incurred has been Rs. 6,04,260, against the estimate of Rs. 7,30,593.

53. The building in the Fort at Bombay, known as the Hydraulic Press, made over to Government in exchange for the old Elphinstone College, by Sir Dinsha M. Petit, has been altered and added to, in order to provide accommodation for the Government Central Press. The estimated cost of the additions and alterations is Rs. 49,765, of which Rs. 19,608 were expended during the year.

54. Certain additions and alterations to the Public Works Office at Ahmedabad, to provide accommodation for the Gujarát Irrigation Office, were in progress, and Rs. 2,005 spent during the year, against the estimate of Rs. 3,006.

II.—COMMUNICATIONS.

55. The total outlay on Communications was Rs. 27,77,776 of which Rs. 9,01,540 were spent on Original Works ; Rs. 13,16,310 on Repairs ; Rs. 5,33,330 on Establishment ; and Rs. 26,596 on Tools and Plant.

1.—ROADS.

56. A map in three sheets is attached, on which are shown the principal lines of road in progress, or completed during the year.

57. Considerable progress has been made during the year with all the railway feeders in the Belgaum Collectorate, which have been described in previous years' reports. On the road from Nipáni to Mahálingpur, crossing the West Deccan Railway at Chikodi Road Station, the whole of the sanctioned allotment for the year, *viz.* Rs. 80,000, was spent, the total expenditure at the end of 1887-88, being Rs. 1,61,559, against the sanctioned estimate Rs. 3,58,257.

58. The road from Hukeri to Gokák, with the exception of a bridge and a causeway, was nearly completed, and a road about half a mile in length from the railway level-crossing to the station, is in progress. The cost of this bit of road will be met from savings on the

estimate for the Hukeri-Gokák Road. The total expenditure up to the end of the year was Rs. 1,47,237, against the estimate of Rs. 2,22,718.

59. On the road from Gokák towards Navalgund (in the Dhárwár Collectorate) the expenditure of the year has been Rs. 58,592, and the total up to the end of the year, Rs. 1,90,738, against the estimate of Rs. 3,20,262.

60. Two short roads to connect the railway stations at Gunji and Khánápur, on the West Deccan Line, with the nearest cart road, *viz.*, the road from Belgaum to Supa, were completed in the year, at a cost of Rs. 3,405, and Rs. 1,044 respectively; and the improvements to the road from Bágevádi to Bailhongal, in the Sampgaon Táluka of the Belgaum Collectorate, were carried out to such extent as the sanctioned allotment for the year admitted, the total expenditure to the end of the year being Rs. 42,918, against the estimate of Rs. 86,988.

61. In connection with the work of metalling four miles of road in British territory, from Udgaon towards Miraj, metal has been collected, and it will be spread and consolidated in the rains of 1888-89. The expenditure of the year has been Rs. 11,104 against the estimated cost, Rs. 15,544. Similarly, metal and sand have been collected and stacked by the sides of the Road from Dájipur to the head of the Phonda Ghát, a portion of the Nipáni-Dájipur Road; the outlay of the year having been Rs. 6,374, against the estimate of Rs. 10,000.

62. In the Dhárwár Collectorate, the road from Havasbhavi to the Byádgi Station, on the southern extension of the Southern Marátha Railway, 10½ miles long, in progress last year, was completed at an outlay of Rs. 24,081, against the estimate of Rs. 26,972. A short road connecting the Annigiri Railway Station with the nearest cart road, was also completed, at a cost of Rs. 2,163, and the junction with the Hubli Station is thus practically completed.

63. Improvements to the road from Navalgund to Annigiri have been in progress. The metalling of the surface of the first 6 miles has been completed; the expenditure to the end of the year having amounted to Rs. 30,799, against the estimate of Rs. 56,017.

64. Improvements to the two portions of the Palla-Bádámi Road, one between Miraj State (junior) and Bankápur, 9½ miles long, and the other between Betgiri and Kotmuchgi, 11½ miles long, were in progress. On the former, 11 drains have been built, and two nearly completed, the outlay of the year having been Rs. 9,999, against the estimate of Rs. 47,667. On the latter, materials for improving the surface were being collected, the expenditure of the year having been Rs. 4,738, against the estimate of Rs. 19,766.

65. With the work of improving the second section of the Havanur-Samasgi Road, 29¼ miles in length, good progress has been made. Five drains have been built, and about 5¼ miles of the road metalled. Most of the gradients of the road have been improved, and large quantities of metal collected and stacked, to be spread during the ensuing year; the expenditure of the year has been Rs. 19,988, against the estimate of Rs. 83,168.

66. In connection with the work of metalling 3 miles of the road from Byádgi to Motebennur, estimated to cost Rs. 7,213, a coating of murum 3″ in thickness has been spread over the surface, and the quantity of metal required, collected and stacked at the road-side, ready for use during 1888-89; the outlay of the year has been Rs. 5,739.

67. In the Bijápur Collectorate, the road from Muddebihál to Chimalgi, crossing the East Deccan Line at Almatti, 19½ miles long, in progress last year, was completed at a total cost of Rs. 85,260, against the estimate of Rs. 85,906. The feeder road from Guledgudd to Katigeri Station on the East Deccan Line, 6½ miles long, was also completed, the total expenditure being Rs. 29,279, against the estimated cost of Rs. 34,151.

68. The section from Bijápur to Honvad, of the road from Mirya Bay to Shindgi, *vid* the Amba Ghát, described in the previous year's report, was completed during the year, at a total outlay of Rs. 62,498, against the estimate of Rs. 63,039.

69. In the Ratnágiri Collectorate, improvements to the road from Sákharpe to Sangmeshvar, 20 miles in length, estimated to cost Rs. 15,984 were in progress. The improvements consisted in metalling the surface, widening side-gutters, and fixing guard-stones on curves and hill-side of the road. The expenditure to the end of the year amounted to Rs. 15,405.

70. The improvements to the local road from Pen to Panvel, chiefly used for the salt traffic from the Pen Salt Works, in progress last year, were completed during the year, at a total outlay of Rs. 16,917, against the estimate of Rs. 18,007.

71. In the Kánara Collectorate, the work of metalling the road from Haliyál to Linganmatt, 9 miles in length, leading to the railway station at Alnavar on the South Deccan Line, was in progress. The year's operations were confined to the collection of metal and muram; the expenditure having been Rs. 9,999 against the estimate of Rs. 17,042.

72. In the Sátára Collectorate, the road from Wái to Wathar Station, and the road from Sátára to Padli Station, both railway feeders, which were described in the last, and previous

years' reports, were completed, the former at a total outlay of Rs. 1,27,362, against the estimated cost of Rs. 1,30,928, and the latter at an outlay of Rs. 92,556, against the estimate of Rs. 90,066.

73. A third railway feeder, the Karád-Nagaz Road, between Karád and the Karád Railway Station, described in last year's report, was in progress. The work of the roadway was completed, and the road has been of great benefit to the traffic going to the railway station.

74. The work of the causeway across the Krishna River, in connection with the above road, was also in progress; the expenditure to the end of the year having been Rs. 15,550, against the estimated cost of Rs. 22,176.

75. A portion of the Varandha Ghát-Dharampor Road, an unbridged and unmetalled road, leading from the Phaltan State, *vid* Lonand Station and the Varandha Ghát, to the port of Mahád, which had never been completed, and was almost impassable during the rainy season, was improved during the year; the expenditure incurred having been Rs. 2,345, against the estimate of Rs. 5,144.

76. The road from Pusegaon to Vaduj, a local work, was in progress. This road is a feeder to connect the towns of Khatáv and Vaduj, the latter being the head-quarters of the Khatáv Táluka, with the railway at Koregaon, *vid* the Sátára-Pandharpur Road. The road will be 12 miles in length, of which 10 miles will be entirely new, and 2 miles along an existing cleared road; it will be embanked and drained, but not bridged; the surface will be murammed. The expenditure of the year has been only Rs. 1,698, which was due to the crops having been on the ground when the work was commenced in December 1887.

77. In the Sholápur Collectorate, a road from Yedsi to Tadavala, 8 miles and 400 feet in length, in continuation of the Bársi-Yedsi Road, was in progress. A layer of metal 6″ thick has been laid over the whole length, and rolling has been completed for 5 miles. Two slab-drains and 2 culverts of 3 spans, 12′ each, have been finished, and out of 15 road dams, 3 are completed and 12 are in progress; the catch-water drains are half finished; and the stone for kerbing is collected, and an inspection bungalow with out-houses has been constructed at Yedsi. A portion of this road near Yerandvádi, a length of about two thirds of a mile, passes through the Nizám's territory, and the cost of this portion will be defrayed by that State. The expenditure incurred to end of the year was Rs. 56,600, against the estimate of Rs. 67,554.

78. The improvement to the Karabgaon-Akalkot Road, described in last year's report, consisting of metalling 7 miles of the road, was completed, at a total cost of Rs. 15,113, against the estimate of Rs. 15,592.

79. In the Poona Collectorate, fair progress has been made with the lining of two portions of the Kátraj tunnel, 26 feet, and 48 feet in length, respectively, and it is expected that the work will be completed in June 1888. The total estimated cost is Rs. 19,648, and the total outlay to the end of the year, Rs. 11,202.

80. The improvements to the Poona-Awlas, Local road, consisting of the reconstruction of sixteen road dams, and improving the gradients of nála-crossings, were in progress. Eight of the dams were completed during the year, the total expenditure being Rs. 7,627 against the estimate of Rs. 9,788.

81. The improvements to Bárámati-Khanowta, Local road, consisting of forming and recoating with hard muram, the first 6½ miles, commencing from its junction at Bhigwan with the Sholápur Road, were completed at an expenditure of Rs. 4,868, against the estimated cost of Rs. 5,000.

82. Some improvements, consisting chiefly of reconstructing seven road dams, which had been damaged by floods and partially washed away, on the Sásvad-Jejuri Local road were commenced. The works having been undertaken late in the year, little progress was made, beyond collecting materials. The amount of the estimate is Rs. 2,854, of which Rs. 1,289 were expended.

83. The G. I. P. Railway Company having lowered the overbridge on the Bund Road at Poona, by 2 feet, and the Southern Marátha Railway Company having constructed a new overbridge alongside the G. I. P. Bridge, on the same level, the approaches of the Bund Road were in consequence widened by this Department, from 24 to 30 feet, and the gradients reduced, from 1 in 26, to 1 in 30, which has effected a great improvement.

84. In the Ahmednagar District, four miles of metal were newly spread and rolled, on the Ahmednagar-Toka Road; and the portion spread in the previous year was thoroughly consolidated. The expenditure has been Rs. 46,613, against the estimate of Rs. 63,756.

85. The construction of a zigzag south approach to the Godávari River, on the Toka Road, which has been long required, was commenced in October 1887. No difficulty was

found in getting good firm foundations, and the excavation of foundations, &c., was proceeded with steadily, until a heavy flood came down the river in December 1887. This damaged the walls of the trenches and made them so wide that kutcha brick walls had to be built to keep the concrete to its proper dimensions. Since then the concrete retaining walls and stone pavement, &c., to the lower slope, have been proceeded with, and the work will be completed before the monsoon of 1888. The zigzag is in three slopes, or stages. The lower slope only, which gets the greatest scour, is paved; the two upper ones are metalled. The expenditure has been Rs. 4,863, against the estimate of Rs. 5,860. A similar zigzag has been constructed on the Bellápur feeder road, at Nevása, and has been found to greatly facilitate the ferry traffic.

86. The construction of the feeder road from Bellápur Railway Station to Nevása, has made good progress during the year; and the road will be completed in the monsoon of 1888; the total expenditure to end of the year has been Rs. 1,49,139, against the sanctioned estimate of Rs. 1,57,601.

87. On the feeder road from Vámbori to Khospuri, only a little rolling and repairs to earth-work were done, the road being practically completed. The sanctioned estimate amounts to Rs. 38,573, against which an expenditure of Rs. 32,870 was incurred to end of the year.

88. The Tisgaon-Páthardi Local road, was provided with a surfacing of muram; the masonry dams were improved, and a slab drain constructed. This road is 7·34 miles in length and 20′ wide, and branches off from the Tisgaon-Shevgaon Road, in the 25th mile. The total expenditure has been Rs. 22,287, against the estimate of Rs. 31,694.

89. One and a quarter mile of the Bábulgaon-Takli Local road, the length of which is 3¼ miles, has been constructed, and embankments provided for the surface, over which a coating of mruam 6 inches in thickness has been spread. The road has been properly consolidated. The sanctioned estimate amounts to Rs. 5,129, against which an expenditure of Rs. 1,479 has been incurred.

90. The work of constructing the Vitta Diversion of the Loni-Bári Road, round the Maladevi Tank, was completed during the year; the total expenditure having been Rs. 21,204, against the estimate of Rs. 22,700.

91. In the Násik Collectorate, the 4th section of the Násik-Dindori and Kalvan Road, which commences at the top of the Ivatbari, was in progress; work having been completed up to the 44th mile, near the village of Kalvan. The road is open up to Kalvan during the fair weather, and when the cross drainage works are entirely completed, it will be free from any obstruction in the monsoon. The expenditure during the year was Rs. 6,698, and the total expenditure Rs. 1,47,081, against the estimate of Rs. 1,85,255.

92. The work of improving and widening the Satighát Road, and providing cross drainage works where necessary, throughout the length of the Ghát portion, commenced in 1885-86, was almost completed. The expenditure during the year was Rs. 2,969, and the total expenditure Rs. 32,729, against the sanctioned estimate of Rs. 33,092.

93. The Hasteh and Bareh Ghát Local road, about 5 miles in length, leading from the foot of the Nanasi Ghát to Hasteh and Bareh, was in progress. The cuttings and fillings, and one masonry drain and 7 dips with retaining walls, were completed during the year. The width of the road is 18′, having a murammed surface throughout its length. The expenditure to end of the year was Rs. 8,288, against the estimate of Rs. 25,876.

94. In the Khándesh Collectorate, the metalling of the portion of the Bombay and Agra Road, beyond the river Tápti, was in progress. Six miles, *viz.* 100½ to 106½, have been metalled and consolidated during the year, and a quantity of metal collected for use during the rains of 1888. The progress of the work, however, is much delayed, as the labourers, owing to the insalubrious climate, are unable to continue on the work the whole year round. The total expenditure has been Rs. 20,312, against the estimate of Rs. 64,210.

95. The work of metalling the Dhulia and Chálisgaon Road was in progress; 13 miles have been completed, and metal for 7 miles has been collected for use during the monsoon of 1888. The amount of the estimate is Rs. 53,767, and the expenditure to end of year was Rs. 10,036.

96. The road from the Town of Yával to the River Tápti, was in progress, and all the earth-work has been completed, except for one mile.

97. The work of the 4th section of the Songir and Nandurbár Local road, from Randla to Nandurbár, 12 miles in length, was in progress for only part of the year, as some difficulty was experienced in obtaining lime. Arrangements, however, have been made for obtaining the lime required, and the work of preparation will be carried on departmentally. The expenditure up to the close of the year was Rs. 38,426, against the estimate of Rs. 62,746.

98. The work of metalling the Local road from Songir to Dondaicha, 23 miles in length, was nearly completed. The total expenditure has been Rs. 47,560, against the estimate of Rs. 51,980.

99. The Local road from Dhulia to Amalner, 1st section, from Fagna to Chopdai, 7 miles in length, was in progress. Portions of the embankments and drains washed away during the last rains, have been restored, and culvert No. 4 of two arches completed up to springing, and the road murammed from this culvert to the Bhil Chauki. The expenditure to end of the year was Rs. 24,619, against the estimate of Rs. 34,992.

100. In the Thána District, the road from Dáhánu to Jawhár was completed, with the exception of stone metal. The length of the road is 26¾ miles, and the surface is hard muram and jungle metal. 55 bridges, culverts and drains have been constructed, and among these are 4 bridges of 20 feet span, and one of three 20′ spans, constructed with concrete arches and concrete and masonry abutments. The Surya River is forded in the 16th mile, by a paved crossing, between 2 cement concrete walls. The force of water at the crossing, in the rains, is very great, but the work has stood well. The road connects the B. B. & C. I. Railway with the limits of the Jawhár State, and opens out valuable forests. The Rája of Jawhár is constructing the remaining section of the road up to Jawhár, 12 miles distant. The expenditure of the year has been Rs. 25,000, and the total expenditure, from the commencement, on sections I and II, has been Rs. 74,466, and Rs. 80,642, respectively.

101. The murammed road from Váda to Shirghát has been lately commenced, and the earthwork, &c., is in progress on the first 2 miles of the 2nd section, and the last 4 miles of the 3rd section. The outlay during the year has been Rs. 6,000. The sanctioned estimates for the two surveyed sections (*viz.* from Parali to Suryamál, and Suryamál to Shirghát) amount to Rs. 60,008, and Rs. 30,496, respectively, and their lengths are 10½ miles each.

102. The Satowli Khind Road in Bassein Táluka, described in last year's report, has been completed at a total cost of Rs. 3,531. It is 2 miles in length, and is intended to facilitate the carriage of forest produce across a small range of hills.

103. The Local Fund road from Bhiwndi to Váda, described in last year's report, is still in progress, the total cost to end of the year being Rs. 1,25,664. As a murammed surface was found insufficient for the heavy traffic which passes over the greater length of the line, from the Bhiwndi end, the metalling provided in the estimate, is being proceeded with.

104. The Local Fund roads from Málád to Merva, Borowli to Gorai, Kulwa to Belápur, and Bhynder to Utan, were sanctioned by the Táluka Local Board of Sálsette, and are all in progress. The first two, and the last connect the B. B. & C. I. Railway with villages on the sea-coast; and a great part of them runs through marshy land, and across creeks, and their lengths vary from 3½ to 6¼ miles. The Kulwa-Belápur Road is 18 miles in length, and runs from near Thána, to a bandar near Panvel, along a level strip of land. Only 6¼ miles have as yet been opened up, at a cost of Rs. 5,968.

105. A road from Nirmal to Giring, described in last year's report, has been completed, the total outlay having been Rs. 2,000.

106. The road from Máhím, through the Pálghar station, to the east foot of Cháhád Khind, has been under prolongation as far as Manor. It crosses the Surya River by a ford, which is under construction. Earthwork, &c., is in progress in 5 of the 6½ miles of the extension, and an expenditure of Rs. 3,250 has been incurred, against the estimate of Rs. 28,783.

107. The Local Fund fair weather road from Dhadial to Kharchi in the Broach Collectorate, and the improvement to the road from Ránder to Olpád, have been completed, the former at a cost of Rs. 3,108, and the latter at a cost of Rs. 11,578.

108. The road from the Mojura Gate of the city of Surat, to the Pársi Tower of Silence at Barthana, was in progress. The embankment has been completed, and material collected. The expenditure during the year was Rs. 1,758, and the total expenditure Rs. 2,753, against the estimate of Rs. 4,075.

109. The road from the Dákor and Kapadvanj line towards Modása, and the road from Báad to Bibipura, fully described in former reports, have been completed, with the exception of the bridge over the Watrak River, and its approaches.

110. The bridges and drains on the road from Godhra to Shera have been nearly completed, and those on the road from Godhra to Sunth have made very good progress, and will be completed early next year. Both roads have been fully described in previous reports. On the Wasad and Borsad Road, a layer of stone metal 3″ in thickness was laid on 4 miles near Borsad, during the last rains, and an additional length of four miles will be treated in the same manner during the approaching monsoon. The work of providing a metal layer on the 1st and 2nd miles of the Kaira and Sábarmati Road has been completed. On the road between Mehlaj and Tiraj, all the work, with the exception of metalling, has also been completed.

111. The traffic on the Godhra-Dohad Road, the main road of the Panch Maháls, being very heavy, and of a special character, a contribution of Rs. 50,000 was granted by Government for re-metalling it, and a commencement has been made with the work.

112. The re-metalling of the Godhra Town roads has been in progress from Municipal Funds, and the work will be completed before December 1888.

113. The metalled road from Modása to Bibipara, described in last year's report, was in progress. The road is a section of the Dákor-Modása Road *viâ* Kapadvanj, and has now been completed, with the exception of the bridges, which are all in progress, and a portion of the metal consolidation, which will be completed by the end of next year. The estimated cost is Rs. 1,10,596, out of which Rs. 72,784 have been spent up to the end of 1887-88, the expenditure during the year having been Rs. 52,836.

114. The work of raising and metalling the road from Ahmedabad to Dholka (18 miles) was in progress, and Rs. 26,326 were spent up to the end of the year, against the estimate of Rs. 1,37,913, the expenditure during the year having been Rs. 19,866, which amount was laid out in completing the road up to the 6th mile. Materials for the next two miles have been collected and stacked on the road-side, and the dips and culverts have been nearly completed.

115. The work of improving the road from Dhanduka to Tagdi, (6 miles) was in progress, and Rs. 3,484 were spent to end of the year, against the estimate of Rs. 27,824. The improvements consist of providing dips, and restoring the portions of the embankment which were washed away.

116. A Local road from Viramgám to Hansalpur was in progress. This is an unmetalled road about 2 miles long and 20 feet wide. The expenditure during the year was Rs. 291, the estimated cost being Rs. 7,377.

2.—BRIDGES.

117. In the Sátára District, the raising of the Níra River Bridge, fully described in last year's report, was completed at a cost of Rs. 15,461, of which Rs. 6,430 were contributed from Imperial Irrigation Funds, and the balance Rs. 9,031 provided from Provincial Funds.

118. The foot bridge across the Urmodi River near Parli, described in last year's report, was completed at a total cost of Rs. 11,466, against the estimate of Rs. 11,616.

119. In the Belgaum District, a timber-topped bridge over the Pandheri River, at Londa, was in progress. Owing to the bad climate and scarcity of labour near Londa, and the rains having been heavy and continuous up to a late date in 1887, work could not be put in hand much before December 1887. The foundations of all the piers and abutments have been put in, and the masonry has been raised to an average height of about 7 feet, and the wood-work for the top was under preparation The expenditure to the end of the year has been Rs. 7,965, against the estimated cost of Rs. 14,479.

120. In the Kánara Collectorate, a bridge on the Bidrali Nála, on the Sirsi-Shimoga Road was in progress. Owing to the scarcity of labour, much progress was not made with the work; materials only were collected, and the foundations excavated, the outlay during the year having been Rs. 4,379, against the estimate of Rs. 20,559.

121. The project for bridges and drains on the Yellápur and Mundgod Road is still under revision; and a small amount only was expended in collecting materials.

122. In the Sholápur District, a bridge of 3 arches of 15′ span each, over the Todwell Nála, No. 10, in mile 20 of the Bársi Station-Pandharpur Local Road, was in progress. The estimate amounts to Rs. 3,797, and Rs. 580 was expended in collecting materials, and in filling in foundations.

123. On the same road, another bridge of two arches, each of 20′ span, on the Bábulgaon Nála, in mile No. 24, was commenced. The work was sanctioned too late in the year to admit of much progress being made. Materials, however, were collected, and the foundations filled in. The expenditure was Rs. 935, against the estimate of Rs. 4,939.

124. A culvert of 10′, of 3 spans, was also commenced on the Ashti Nála, No. 9, in mile 19 of the same road. The Nala bed was cleared, and foundations excavated and filled in, and materials collected; the expenditure was Rs. 475, against the estimate of Rs. 2,248.

125. The crossing over the nála in the 4th mile of the Sholápur-Bársi Road, was improved, by the construction of two masonry side walls, at a cost to the Local Funds of Rs. 2,777.

126. In the Poona District, the work of constructing a bridge over the Indráyani River at Indori, was completed at a total cost of Rs. 77,930, against the estimated amount of Rs. 81,443, and the bridge opened for traffic on 1st April 1888. It is a large and very important work, and provides a permanent crossing over the river Indráyani, at the village of Indori. The bridge is constructed of stone masonry throughout, and consists of seven segmental arched openings, each of 40 feet span and 10 feet rise. The piers and abutments stand about 27 feet, and the finished road-way about 41 feet above the river-bed. The road-way has a clear width of 18 feet between the parapets of the bridge, and 20 feet on the approaches. The project includes 4,214 feet of approach road on the east, and 4,296 feet on the west side.

127. A bridge across the Chindini Creek, of 5 openings of 20 feet each, with stone piers and roadway carried by wrought iron beams, has been in progress; the total outlay during the year having been Rs. 4,280, against the estimate of Rs. 8,890.

128. In the Broach Collectorate, a bridge over the Dhadhar River, on the road from Broach to Jambusar, has been commenced. The bridge will connect the Jambusar Táluka and its rich cotton area, with the other parts of the district, from which, for at least five months of the year, it is cut off from communication. The bridge is to be of 4 spans, each 88½ feet clear, and 92½ feet from centre to centre of piers. The piers will each consist of two cast iron cylinders, 5 feet diameter below, and 4 feet above bed level, and 15 feet 4 inches apart, centre to centre. The cylinders will be sunk until reliable foundations have been secured, and they will then be filled with Portland cement concrete. The superstructure will consist of wrought iron girders, cross girders, &c, with iron flooring plates. The approaches have been commenced, and indents for the iron work have been forwarded to the Secretary of State. The expenditure during the year was Rs. 3,183. The estimated cost of the work is Rs. 1,50,841, which will be met in equal proportions from Provincial and Local Funds.

129. The bridge over the Watrak river, at Bibipara, included in the estimate of the Baad and Bibipara Road, was in progress. The work of collecting materials, &c., was in progress at the end of the last year, and the foundations of most of the piers will be completed before the rains. The bridge consists of 7 spans of 30 feet each, of wrought iron girders carried by brick and lime masonry piers. The girders have been purchased from the B. B. & C. I. Railway Company.

130. The work connected with the bridge over the Shedi River, described in previous reports, has been completed, the total expenditure being Rs. 18,362, against the estimate of Rs. 18,370.

131. The existing wooden groynes, constructed in 1886-87, for the protection of the South abutment of the iron bridge over the River Omkár near Phedra, have been prolonged further on the river side, to a length of about 15 feet, by driving new teak piles. The expenditure to the end of 1887-88 was Rs. 2,455, against the estimate of Rs. 2,543.

132. In Sind, the only work of importance was the reconstruction of the bridge over the Fuleli at Hyderabad. The masonry works have been completed at a cost of Rs. 3,813, and the iron work was under delivery, payment of Rs. 3,352 having been made on this account.

133. Numerous small bridges and culverts over canals and nálas, which it is not necessary to particularise, have also been undertaken during the year, and completed.

5.—BOAT BRIDGES AND FERRIES.

134. The construction of a wire rope ferry; and a twin ferry boat on the Malprabha River, at Kamatgi in the Bijápur Collectorate, on the Hungund-Bágalkot Road (feeder to the railway at Bágalkot) was completed during the year, at a cost of Rs. 5,486, against the estimate of Rs. 6,387.

135. In the Ahmednagar Collectorate, a ferry has been constructed on the Dama River, in connection with the Kolhar-Bari Road, close to the Ghoti Station of the G. I. P. Railway, by which all the traffic on the road finds an outlet. The ferry is of the usual type, and is now in working order. The expenditure has been Rs. 3,989, against the estimate of Rs. 4,150.

136. A timber jetty with fixed piles and moveable roadway, in the Nerbudda River near Broach, was in progress, and will probably be completed before the monsoon of 1888. The estimated cost is Rs. 3,777, and the expenditure during the year Rs. 1,780, from Local Funds.

6.—ACCOMMODATION FOR TRAVELLERS.

137. At Chicknandi in the Gokak Táluka of the Belgaum Collectorate, the Dharmshála in progress last year, was completed at a total expenditure of Rs. 5,596, against the estimated cost Rs. 6,334; and in the Kánara Collectorate, at Gersappa, a Travellers' Bungalow with out-houses, also commenced last year, was completed during the year at a total outlay of Rs. 7,691, against the estimate of Rs. 8,019. The accommodation in this Bungalow consists of two sitting-rooms, each 18′ × 18,′ with an 8-feet verandah all round. The side verandahs contain 2 dressing rooms, with 2 bath-rooms attached; the arrangements are such that two travellers can be accommodated at a time. The out-houses contain two cook-rooms, each 17′ × 10′, with a shed at the rear side, for horses and carriages.

III.—MISCELLANEOUS PUBLIC IMPROVEMENTS.

138. The total outlay under this head has been Rs. 2,93,880, of which Rs. 1,83,168 have been expended on Original Works; Rs. 49,117 on Repairs; Rs. 59,387 on Establishment; and Rs. 2,208 on Tools and Plant. The principal works under execution, or completed, were:—

3.—PAVING AND STREETS.

139. At Bombay, on the ground enclosed by the Hornby and Esplanade Main Roads, some small lengths of road have been constructed for the use of occupants of buildings erected on plots leased or sold by Government, and the expenditure incurred has been Rs. 4,630.

5.—WATER-SUPPLY.

140. In the Belgaum Collectorate, the paving round the well at Radanhatti was completed, and a water trough for cattle provided; the total cost of the work having been Rs. 4,856, against the estimate of Rs. 6,400.

141. In the Bijápur Collectorate, the draw-well at Kajidoni, reported last year as in progress, was completed at a cost of Rs. 4,685, against the estimate of Rs. 4,696; and improvements to the Local tank at Nidgundi, Táluka Bágevádi, were in progress; the expenditure to the end of the year having been Rs. 1,131, against the estimated cost of Rs. 2,859.

142. The work of improving the Local tank at Tankária in the Broach District, was in progress. The expenditure during the year amounted to Rs. 2,412, against the estimate of Rs. 4,000.

143. The construction of a weir across the Vánki River, to furnish a supply of water for railway purposes, and for which funds have been contributed by B. B. & C. I. Railway Company, was in progress, and Rs. 1,192 have been expended in excavating foundations and collecting materials. The estimated cost of the work is Rs. 6,323.

144. Improvements to Local tanks at Daban, Saloon, Borsad, Mitrul and Wassad, which supply water to these villages, were in hand during the year. The improvements to the first three have been completed, and good progress made with the others. One new well, about 90 feet in depth, was in progress at the village of Gungapura in the Ánand Táluka.

145. At Dholka in the Ahmedabad Collectorate, owing to the scarcity of drinking water, 4 wells of 10′ diameter each, were sanctioned by the Local Boards, and their construction entrusted to this department. Materials have been collected, and the works are in progress, Rs. 1,300 of the estimate of Rs. 7,638 having been expended during the year.

146. Surveys for water-supply projects for the towns of Dhulia in the Khándesh, Bársi in the Sholápur, and Panvel in the Kolába Collectorates, and for a tank in the village of Gadgin in the Miraj State Junior, and for the extension of the Kás water to the Station and Sadar Bázár at Sátára, have been undertaken by the Department during the year; and plans and estimates submitted for the projects for the water-supply of Yeola in the Násik Collectorate, and Nipáni in the Belgaum Collectorate.

147. In the Poona Collectorate, the Junnar and Talegaon water-supply works were completed during the year, at a total cost of Rs. 32,702, and Rs. 36,939, respectively, and handed over to the Municipalities concerned.

148. The Shirsi Bandhára for the Akalkot State, described in the Irrigation Administration Report for 1885-86, was completed during the year at a cost of Rs. 17,043.

8.—LIGHT-HOUSES.

149. The work of substituting concrete arched roofing for corrugated iron, over the out-houses of the light-house on the Vengurla Rocks, was completed during the year, at a total expenditure of Rs. 7,331, against the estimated cost of Rs. 7,395.

150. The new light-house on the Vengurla Rocks, described in last year's report, was in progress, the expenditure to the end of the year having been to Rs. 11,316, against the revised estimate of Rs. 15,939.

MISCELLANEOUS.

151. The work of clearing and levelling ground in the Arkilla, and for the new bázár, and in the vicinity of public buildings and residences, at Bijápur, and of making certain roads, has been carried on by the extra-mural convict gang located at Bijápur, for the purpose. Cutting down and removing prickly-pear bushes from the neighbourhood of the Police Superintendent's residence has been completed. The work in connection with the protection of manholes of the Torveh Tunnel, in the vicinity of Bijápur, has been in progress. The total expenditure on the work up to the end of the year amounted to Rs. 1,58,489, against the estimated cost of Rs. 1,86,494, the outlay during the year having been Rs. 33,490.

152. At Aden, for the convenience of passengers who are compelled to undergo quarantine at that station, the flat "Hyderabad" is being fitted up as a Lazaretto, at the cost of the Aden Port Funds. The accommodation will consist of 4 cabins, with one berth each, a dining saloon, cook-room and a servant's room, and is estimated to cost Rs. 8,326, of which Rs. 4,009 have been spent during the year.

153. An additional boat slip 260′ in length, at Steamer Point, has also been completed at a cost, to the Port Funds, of Rs. 5,122.

BOMBAY PRESIDENCY
Part I.
GUJÁRAT AND THE TÁPTI VALLEY
Scale of Miles
40 30 20 10 0 40
RAN OF CUTCH
GULF OF CUTCH
KATHIAWAR
GULF OF CAMBAY
CENTRAL INDIA AGENCY
CENTRAL PROV.
BERAR
KHANDESH
Virávah
Rahim-ki-Bázár
Mount Abu
Dhánera
To Ajmere
UDEYPUR
Tharád
Diodar
Deesa
PALANPUR
Posina
Danta
Suigám
Thara
BANAS R.
Pol
To Nusseerabad
DUNGARPUR
Lakhpat
Khávda
Sántalpur
RADHANPUR
SARASVATI R.
Pátan
IDAR
Mehsana
Ahmednagar
SANSWARA
Munjpur
Mansa
Paranti
To Neemuch
MAHI R.
Kadi
SÁBRA
SUNTH
Jakhán
BHUJ
Bhachau
Pátri
Dhuliakot
Viramgám
AHMEDABAD
LUNAVADA
Jhálod
Kapadvanj
DHRANGADRA
Sánand
Mándvi
Morvi
KAIRA
GODHRA
To Mhow
JHABUA
Dohad
INDORE
To Agra
Wadhwan
Dholka
Nadiad
Umreth
BÁRIYA
DHAR
Dhrol
Vánkaner
Limbdi
Kálol
AMJHERA
MHOW
NARUKOT
Halol
NAWANAGAR
Borsad
CAMBAY
BARODA
To Mhow
Dwárka
RAJKOT
Dhandhuka
CHHOTA UDEYPORE
Bahádarpur
Jambusar
DHADHAR R.
Gondal
Chándod
NARBADA R.
BARWANI
To Jubbulpore
Amod
Vágra
NANDOD
Dhoráji
Jetpur
BHAVNAGAR AND GONDAL RAILWAY
KHARGON
BROACH
Porbandar
JUNAGAD
Amreli
Gogha
Anklesvar
Taloda
Shahada
Pálitana
KIM R.
TÁPTI R.
Shirpur
Olpád
Nandurbar
Mándvi
Chopda
Yával
Sávda
Dáthia
SURAT
Bardoli
Amalner
Jalgaon
SACHIN
PÁNJHRA R.
Bhusaval
To Nágpur
Jalalpur
Pimpalner
Erandol
DHULIA
Jáfarabad
DANG
Chikhli
BANSDA
Bhadgaon
PURNA R.
Jámner
SURGANA

BOMBAY PRESIDENCY
Part II
THE DECCAN, KONKAN AND KARNÁTIC
Scale of Miles
SACHIN
DHULIA
Bhusával
Pimpalner
BANSDA
Jánimer
Chikhli
SURGANA
Satána
Málegaon
Bhadgaon
Páchora
Bulsár
DHARAMPOR
Kalván
Párdi
DAMAN
Chálisgaon
Ajanta
Penn
Chándor
Pimpalgaon Basv.
Nándgaon
Umbargaon
Dindori
Vinchur
Niphad
Yeola
Dáhanu
NASIK
Kopargaon
Tárapur
JAWHAR
Sinnar
AURANGABAD
Máhun
Vada
Ratpuri
Sangamner
Agáshi
Akola
Ráhuri
Névása
Bassein
Bhiwndi
Sháhapur
Shevgaon
Murbad
Kalván
THÁNA
Júnnar
Bándra
Panvel
AHMEDNAGAR
BOMBAY
Uran
Karjat
Khed
Párner
Pen
Vadgaon
Sirur
Kada
Khadkala
Talegaon Dhamdhere
Jámkhed
ALIBÁG
Chaul
Yerrowda
Shrigonda
Roha
Karjat
POONA
MURUD
JANJIRA ST.
Pátas
Karmála
Sásvad
Mángaon
Supa
Bársi
GHOR
Indápur
Mádha
Mahad
PHALTAN
Bánkot
Wai
Harnai
Dápoli
Medha
Málsiras
Dahivadi
Tolhyderabad
Khed
Koregaon
Landharpur
SHOLÁPUR
AKALKOT
SATÁR
Khatav
Anjanvel
Rahimatpur
Vadúj
Sángola
Mangalvedha
Chiplún
Patan
Atpádi
To Madras
Jaygad
Karád
Vita
Indi
Sangameshwar
Tásgaon
JATH
RATNÁGIRI
Devrukh
Peth
Sindgi
Ashta
SÁNGLI
BIJAPUR
MIRAJ
Rájápur
Athni
KOLHÁPUR
KURUNDVAD
Bágevádi
Vizíadurg
JAMKHANDI
Devgad
Chikodi
Muddebihal
MUDHOL
Gad Hinglaj
Kaladgi
Bágalkot
Málvan
Gokák
Hungund
RAMDURG
Bádami
Vengurla
SÁVANTVADI
BELGAUM
Saundatti
Sampgaon
Ron
Mapuça
Khánapur
Navalgund
PANJIM
Goa
DHÁRWÁR
Hubli
Gadag
To Bellari
Mormugão
Supa
Shirhatti
Dambal
Halhvál
Margão
Kundgol
Lakshmeshwar
Kalghatgi
Shiggaon
SÁVANUR
Yellápur
KÁRWÁR
Karajgi
Hángal
Haveri
Ankola
Sirsi
Kumta
Honavar
Siddápur
Bhatkal
MYSORE
GODÁVARI R.
PRAVARA R.
BHIMA R.
KISTNA R.
TUNGABHADRA R.
MALPRABHA R.
GHATPRABHA R.
KALINADI R.
VASHISHTI R.
SAVITRI R.
HIRA RIVER
DON R.
RAILWAY

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